

I Claim

1. A power generator comprising:
a lifting body for suspension in a moving fluid;
5 a control station; and
at least two tethers for tethering the lifting body to
the control station,
wherein the control station is arranged to transform
oscillating tension in the tethers produced by an
10 oscillating movement of the lifting body into mechanical
motion.
2. A power generator as claimed in claim 1 wherein the
tethers are of fixed length and fully extended in use.
3. A power generator as claimed in claim 1 wherein the
15 control station is arranged to control the oscillatory
motion of the lifting body using the at least two tethers.
4. A power generator as claimed in claim 1 wherein the
control station is arranged to control the pitch of the
lifting body using the at least two tethers.
- 20 5. A power generator as claimed in any preceding claim
wherein the control station comprises tied points for
attaching the tethers and is arranged to oscillate the tied
points of the tethers.
6. A power generator as claimed in claim 5 wherein the
25 control station is additionally arranged to reciprocate the
tied points of the tethers.
7. A power generator as claimed in claim 1 wherein the
control station has a first tied point for connection to a
first tether and a second tied point for connection to a
30 second tether wherein the control station is arranged such
that in use, as the lifting body moves in a first direction
towards the control station, the first tied point moves
faster than second tied point in the first direction and
then the second tied point moves faster than first tied
35 point in the first direction, and as the lifting body moves
in a second direction away from the control station the

first tied point moves faster than second tied point in the second direction and then the second tied point moves faster than first tied point in the second direction.

8. A power generator as claimed in claim 1 wherein the control station has a first tied point for connection to a first tether and a second tied point for connection to a second tether wherein the control station is arranged such that in use, as the lifting body moves in a first direction towards the control station, the first tied point moves further than second tied point in the first direction and then the second tied point moves further than first tied point in the first direction, and as the lifting body moves in a second direction away from the control station the first tied point moves further than second tied point in the second direction and then the second tied point moves further than first tied point in the second direction.

9. A power generator as claimed claim 1 wherein the control station is arranged such that, in use, it oscillates the pitch angle of the lifting body.

10. A power generator as claimed in claim 1 wherein the control station comprises a flywheel.

11. A power generator as claimed in claim 9 wherein the flywheel is arranged to pull the lifting body towards the control station.

12. A power generator as claimed in claim 1 wherein the control station comprises a crank.

13. A power generator as claimed in claim 12 wherein the tethers are extendible and/or the crank is deformable to provide adaptation to different wind conditions.

14. A power generator comprising:

- a lifting body for suspension in a moving fluid;
- a control station; and

- at least two tethers for tethering the lifting body to the control station, wherein the control station is arranged to provide rocking motion for control of the pull generated on the tethers by the lifting body and to provide

a translational motion for extracting power from the change of pull in the tethers.

15. A power generator as claimed in claim 14 wherein the control station comprises a 'T' shaped connecting rod for
5 providing the rocking motion and the translational motion.

16. A control station for a power generator using a lifting body in a fluid stream comprising:

at least two tied points for the connection of at least two tethers for tethering the lifting body to the
10 control station; and

means for transforming oscillating tension in the tethers produced by an oscillating movement of the lifting body into mechanical motion.

17. A control station for a power generator using a
15 lifting body in a fluid stream comprising:

at least two tied points for the connection of at least two tethers for tethering the lifting body to the control station; and

means for providing a rocking motion to control the
20 pull generated on the tied points and for providing a translational motion to extract power from the change of pull on the tied points.

18. A method of extracting power from a fluid flow comprising the steps of:

25 suspending a lifting body in the fluid flow using at least two tethers; and

transforming an oscillating tension in the tethers produced by an oscillating movement of the lifting body into mechanical motion.

30 19. A method of extracting power from a fluid flow comprising the steps of:

suspending a lifting body in the fluid flow using at least two tethers;

providing a rocking motion to control the pull
35 generated on the tethers by the lifting body; and

providing a translational motion for extracting power

from the change in pull in the tethers.